

**IN THE SPECIFICATION:**

The paragraph beginning at page 8, line 1 has been amended as follows:

The stiffening elements 33 and 34 arranged around the saddle line 27 are thereby arranged essentially parallel to the saddle back line 27 or to the principal axis 17 of the hollow cylinder. The stiffening elements 31 and 32 arranged around the saddle line 26, in contrast, have a longitudinal course that intersects the saddle back line 26 or at least one straight line parallel to the principal axis 17 of the hollow cylinder. The stiffening elements element 32 is conducted out of the casting compound matrix of the gradient coil system 20 at the end faces of the gradient coil system 20. At one end face, the stiffening element 32 is conducted through an active element 43 fashioned as an apertured disk, for example a piezo-electric element, and through a flange 53 fashioned like an apertured disk. The end of the stiffening element 32 is thickened such that it cannot be pulled through the opening of the flange 53 even given a corresponding tensile stress. The active element 43 can be operated as sensor and/or as actuator. Given sensor operation, the mechanical tension of the reinforcing element 32 can be effected by a corresponding stretching or compression of the active element 43. Optimum mechanical tension of the stiffening element 32 and/or 31 can be calculated, for example, for different time-successive vibration cycles. Given actuator operation, the mechanical stressing of the stiffening element 32 can be modified by controlling the deformation of the active element 43. This also can be dynamically implemented during an operation of the gradient coil system 20. At the other end face, the stiffening element 32 is merely conducted through a flange 54 fashioned as an apertured disk, while foregoing an active element. Compared to the stiffening element 32, the stiffening element 31 has

active elements 41 and 42 at both end faces. These active elements 41 and 42 also can be operated as sensor and/or as actuator.